

WHAT IS CLAIMED IS:

1. A light guiding device of an optical mouse, implemented inside the optical mouse applied to an operating surface, the optical mouse having a light device to project an incident light, the light guiding device
5 comprising:

a bottom, to define a cavity; and

a first lens part disposed facing to the light device, to receive the incident light projected by the light device and focus the incident light to project;

10 a prism plane disposed obliquely towards the first lens part to totally reflect the incident light focused by the first lens part; and

a slope plane arranged obliquely substantially towards the same direction as the prism plane, to slightly and downwardly refract the incident light after a total reflection in order to guide the incident light totally
15 reflected by the prism plane into the cavity.

2. The light guiding device as claimed in claim 1, wherein the incident light after being focused by the first lens part has an included angle of 45 degrees relative to the prism plane.

3. The light guiding device as claimed in claim 2, wherein the
20 incident light after the total reflection is parallel with the operating surface.

4. The light guiding device as claimed in claim 1, wherein the incident light projected by the light device has an included angle of 90 degrees relative to the operating surface.

5. The light guiding device as claimed in claim 1, wherein the

optical mouse has a bottom opening facing directly to a cavity opening formed in the cavity's bottom such that the bottom opening faces directly to the cavity opening formed in the cavity's bottom when the light guiding device is implemented in the optical mouse, so that the incident light in the
5 cavity is projected on the operating surface through the bottom opening and the cavity opening.

6. The light guiding device as claimed in claim 5, further comprising a second lens part disposed in the cavity, to focus reflecting light formed by projecting on the operating surface and project the focused
10 reflecting light.

7. The light guiding device as claimed in claim 1, wherein the light device is a light emitting diode (LED) die.